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INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference A3-070PCT	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/PEA/416)	
International application No. PCT/US 03/30535	International filing date (day/month/year) 26.09.2003	Priority date (day/month/year) 03.10.2002
International Patent Classification (IPC) or both national classification and IPC H01R13/629		
Applicant MOLEX INCORPORATED et al.		



1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 6 sheets, including this cover sheet.

☐ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the opinion
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand 07.04.2004	Date of completion of this report 05.11.2004
Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized Officer Arenz, R Telephone No. +49 89 2399-8177 <div style="text-align: right;">  </div>

**INTERNATIONAL PRELIMINARY
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International application No. PCT/US 03/30535

I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

Description, Pages

1-8 as originally filed

Claims, Numbers

1-9 received on 14.04.2004 with letter of 26.03.2004

Drawings, Sheets

1/5-5/5 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
☐ the language of publication of the international application (under Rule 48.3(b)).
☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority in written form.
☐ furnished subsequently to this Authority in computer readable form.
☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
☐ the claims, Nos.:
☐ the drawings, sheets:

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5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	1-9
	No: Claims	
Inventive step (IS)	Yes: Claims	
	No: Claims	1-9
Industrial applicability (IA)	Yes: Claims	1-9
	No: Claims	

2. Citations and explanations

see separate sheet

Re Item V

Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Reference is made to the following documents:

D1: JP 2002-83650 A

D2: US 2002/052132 A1 (SATO SHIGERU) 2 May 2002 (2002-05-02)

D3: US-B1-6 302 715 (HIRAI YUJI ET AL) 16 October 2001 (2001-10-16)

D4: EP-A-1 162 701 (HIROSE ELECTRIC CO LTD) 12 December 2001 (2001-12-12)

D5: EP-A-0 607 848 (MOLEX INC) 27 July 1994 (1994-07-27)

D6: WO 02/07269 A (TOMITA MITSUHIRO ;YAMAGUCHI TOMISABURO (JP); MOLEX INC (US)) 24 January 2002 (2002-01-24)

The document D1 had been cited by the examiner (see the Guidelines, C-VI, 7.24).

2. The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claim 1 does not involve an inventive step in the sense of Article 33(3) PCT.

- a. The document **D1** is regarded as being the closest prior art to the subject-matter of claim 1, and discloses (the references in parentheses applying to this document):

"...A memory card connector having a front receptacle area communicating with an interior cavity for receiving a memory card (100), comprising:

an L-shaped insulating housing (4) having a rear terminal-mounting section extending transversely across a rear of the cavity, and a longitudinal side wall section extending forwardly of one end of the rear section defining one side of the cavity;

a plurality of terminals (41) mounted in a side-by-side array along the rear terminal-mounting section of the housing and having contact portions at a rear of the cavity for engaging contacts on the memory card;

a metal shell (3) covering at least a portion of the insulating housing (4) and including a cover plate (31) defining a top of the cavity and a longitudinal side wall plate (32) depending from the cover plate and defining a side of the cavity opposite said side defined by the longitudinal side wall section of the housing..." .

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- b. The subject-matter of claim 1 therefore differs from this known memory card connector in that:
 - "...complementary interengaging snap-latch members (50,74) on the housing (16) and the metal shell (18) to snappingly mount the shell to the housing..." are provided.
- c. The problem to be solved by the present invention may therefore be regarded as to provide improved fixing means for the metal shell.
- d. The solution proposed in claim 1 of the present application cannot be considered as involving an inventive step (Article 33(3) PCT) for the following reasons.

Snap-latch members on the housing and the metal shell are generally known in the art, see for example D6 (page 5, lines 5-9 & fig. 2,4) or JP2002-83651 (cited in the application, fig. 2).

It would be obvious to the person skilled in the art, namely when fixing of the metall shell is to be achieved, to apply these features with corresponding effect to a memory card connector according to document D1 without further modification being required, thereby arriving at a memory card connector according to claim 1.

- 3. Dependent claims 2-9 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of inventive step
 - a. The additional features of claims 2 and 3 are known from D1. Hence, the subject-matter of claims 2 and 3 lacks an inventive step (Article 33(3) PCT).
 - b. The additional features of claim 4 are known are generally known see D4 (fig. 1; fixing leg 73; col. 5, lines 27-29) or D1 (fig. 1,2,3,4).

The inclusion of this feature known from D4 into a connector according to D1, without further modification being necessary, would be for the skilled person an obvious design possibility in order to solve the problem posed.
Hence, the subject-matter of claim 4 lacks an inventive step (Article 33(3) PCT).

- c. The additional features of claim 5-7 are generally known, see D3 (fig. 4,6; col. 3,

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lines 43-49& 58ff; springs 2m,2k).

The inclusion of these features known from D3 into a connector according to D1, without further modification being necessary, would be for the skilled person an obvious design possibility in order to solve the problem posed.

Hence, the subject-matter of claims 5-7 lacks an inventive step (Article 33(3) PCT).

- d. The additional features of claims 8 and 9 are known from D1.
Hence, the subject-matter of claims 8 and 9 lacks an inventive step (Article 33(3) PCT).
- 4. The subject-matter as claimed in claims 1-9 is industrially applicable (Article 33(4) PCT).
- 5. Contrary to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in the documents D1, D3, D4 are not mentioned in the description, nor are these documents identified therein.